I. Project Location, Need for Project, and Existing Conditions

A. LOCATION

The 202L/US60 Traffic Interchange (TI) project is in Maricopa County on U.S. Highway 60 (US60, also Superstition Freeway) at Milepost 190.5 in the City of Mesa. Figure 1-1 shows the project location. The project would be to the east of Hawes Road. The study area is bounded by:

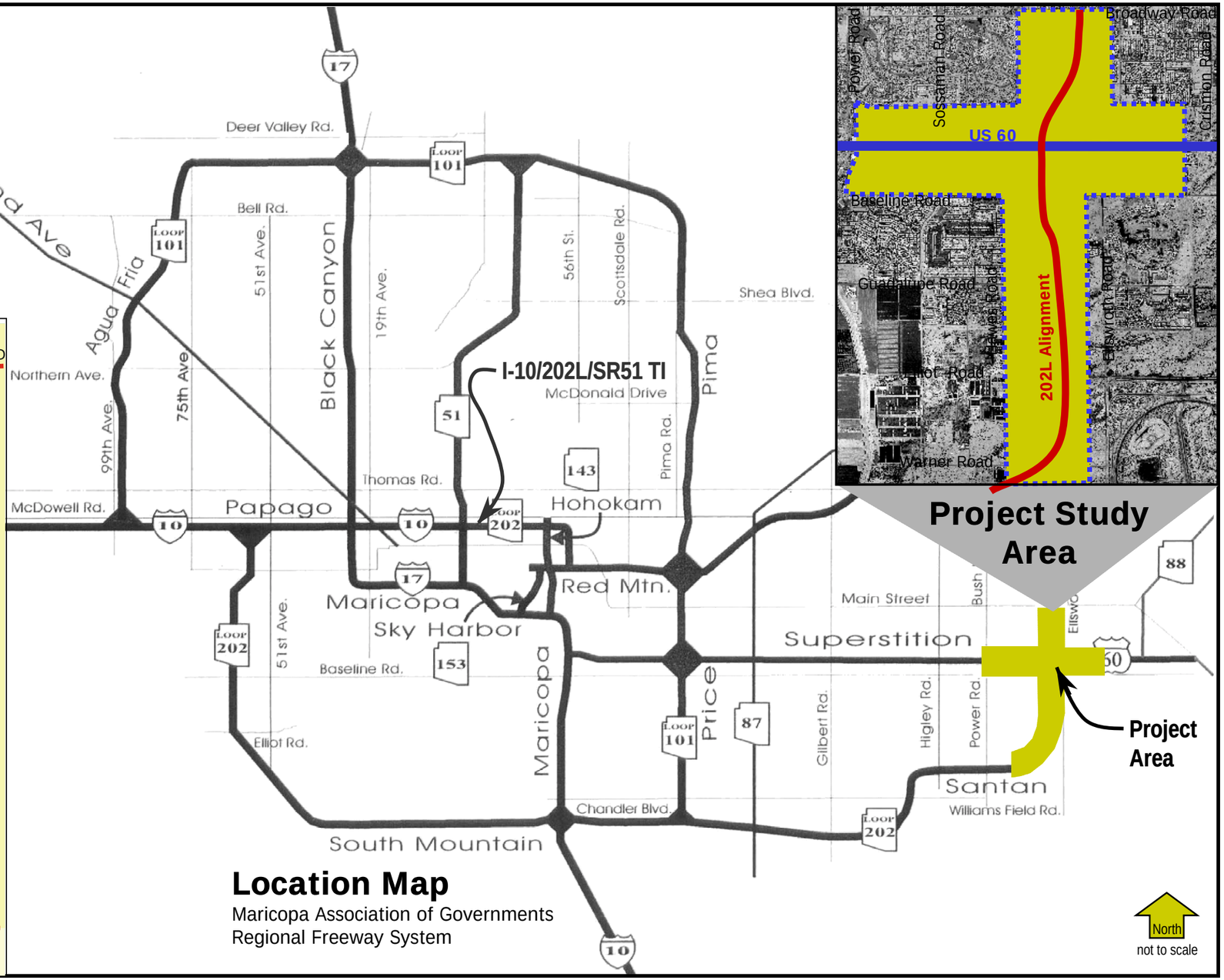
- Broadway Road to the north along the 202L freeway alignment.
- Hawes Road to the south along the 202L freeway alignment.
- Power Road to the west along US60.
- Crismon Road to the east along US60.

B. BACKGROUND AND OVERVIEW

The Red Mountain and Santan Freeways are the northeast and southeast segments, respectively of the Loop 202 (202L), which also consists of the planned South Mountain Freeway in western Maricopa County (Figure 1-1). The 202L is a major element of the Maricopa Association of Governments (MAG) adopted Regional Freeway System **(ADOT January 1998 Certification)** in Maricopa County. The Arizona Department of Transportation (ADOT) and the FHWA prepared a Federal-Level Environmental Assessment (EA) in accordance with NEPA for the segment of the 202L between the Price Freeway (101L) and Baseline Road to secure federal funds for this section of the Santan Freeway **(ADOT 1999b)**. Also in 1999, ADOT and the FHWA completed a FEIS for the 202L from State Route (SR) 87 (Country Club Drive) to Baseline Road, south of the to secure federal funds for this section of the Red Mountain Freeway **(ADOT 1999a)**. With the issuance of the Record of Decision (ROD) for the FEIS by FHWA, the FEIS confirmed the location of the 202L/US60 TI.

C. PURPOSE AND NEED

The primary purpose of constructing the 202L/US60 TI is to serve regional transportation-related needs by linking the 202L and US60. The linkage is an integral component of the MAG Regional Freeway system, which is part of the National Highway System (NHS) in the greater Phoenix metropolitan area. Another purpose of the project is to implement major land use and transportation components of the *Mesa General Plan* **(City of Mesa 1996)**.



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Vicinity Map and Location Map

Figure 1-1

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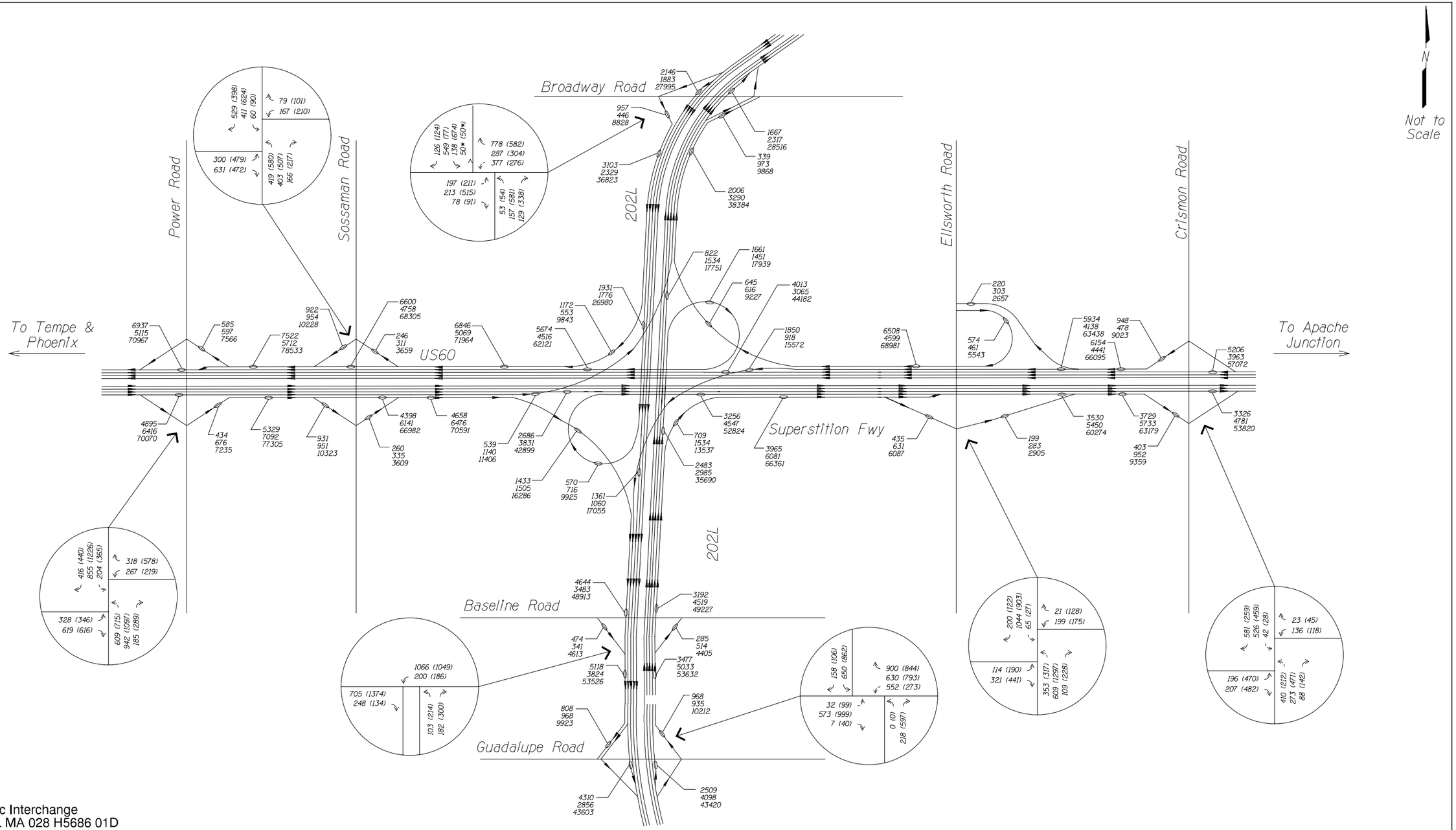
The 202L/US60 TI studied in the FEIS **(ADOT 1999a)** was based on a concept originally developed in 1989 **(ADOT 1989a)**. During the initial stage of the preliminary design, it was determined the TI design concept as shown in the FEIS would not meet current geometric design standards, and would not efficiently service the Design Year 2025 traffic volume projections as forecasted by the Maricopa Association of Governments Transportation Planning Office (MAGTPO). Figure 1-2 illustrates the projected traffic volumes using this TI concept in 2025 during the morning commute (AM Peak) and evening commute (PM Peak) and throughout the day (daily traffic volumes).

From these numbers, transportation engineers can determine how the TI would operate as measured in Levels-of-Service (LOS). The LOS concept uses qualitative measures to characterize operational conditions of traffic flow. These measures characterize the conditions using such factors as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. There are six LOS designations. They are given letter designations from A to F, with LOS A representing the best operating conditions and LOS F the worst (Figure 1-3). Typically when planning new improvements in the state highway system, LOS D is considered an acceptable design level. As shown in Figure 1-4, the TI would function at an unacceptable LOS F at several locations using the design concept approved in the 1999 FEIS **(ADOT 1999a)**.

Consequently, other TI alternatives were developed. The alternatives were developed to:

- Provide adequate capacity and LOS at the 202L/US60 TI for the anticipated Design Year 2025 traffic demand.
- Replace the planned “loop”, or cloverleaf, ramps shown in the FEIS design with “directional” ramps to provide the desired traffic operational characteristics.
- Design the proposed 202L alignment immediately north of the 202L/US60 TI to meet American Association of State Highway and Transportation Officials (AASHTO) and ADOT geometric design standards.
- Extend the project limits on US60 to Power Road and east to Crismon Road. The increased project limits are necessary to address the additional area needed for some of the alternatives for the 202L/US60 TI directional ramp connections with US60.
- Incorporate into the TI design the ability to provide for future High Occupancy Vehicle (HOV) lanes, and for a possible future HOV directional ramp connection between US60 (east of 202L) and the 202L (south of US60).



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LEGEND

XXX - 2025 AM Peak Hour
XXX - 2025 PM Peak Hour
XXX - 2025 Average Daily Traffic
— For freeway related traffic
x (x) - 2025 AM (PM) Peak Hour at Service Traffic Interchange

NOTES

- Each line depicts a single travel lane.
- Arrows indicate direction of traffic flow.
- The circled traffic information shows the number of vehicles entering and leaving the freeway during a.m. and p.m. peak hour traffic.

2025 Traffic Volume Projections

Figure 1-2

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00173/001/dgn/2Fig_1-2.dgn

Level of Service A

Level of Service D

Level of Service B

Level of Service E

Level of Service C

Level of Service F

Source: Highway Capacity Manual, Special Report 209, Third Edition, Transportation Research Board, National Research Council, Washington, D.C., 1994

Illustrations of Levels of Service

202L/US60 Traffic Interchange
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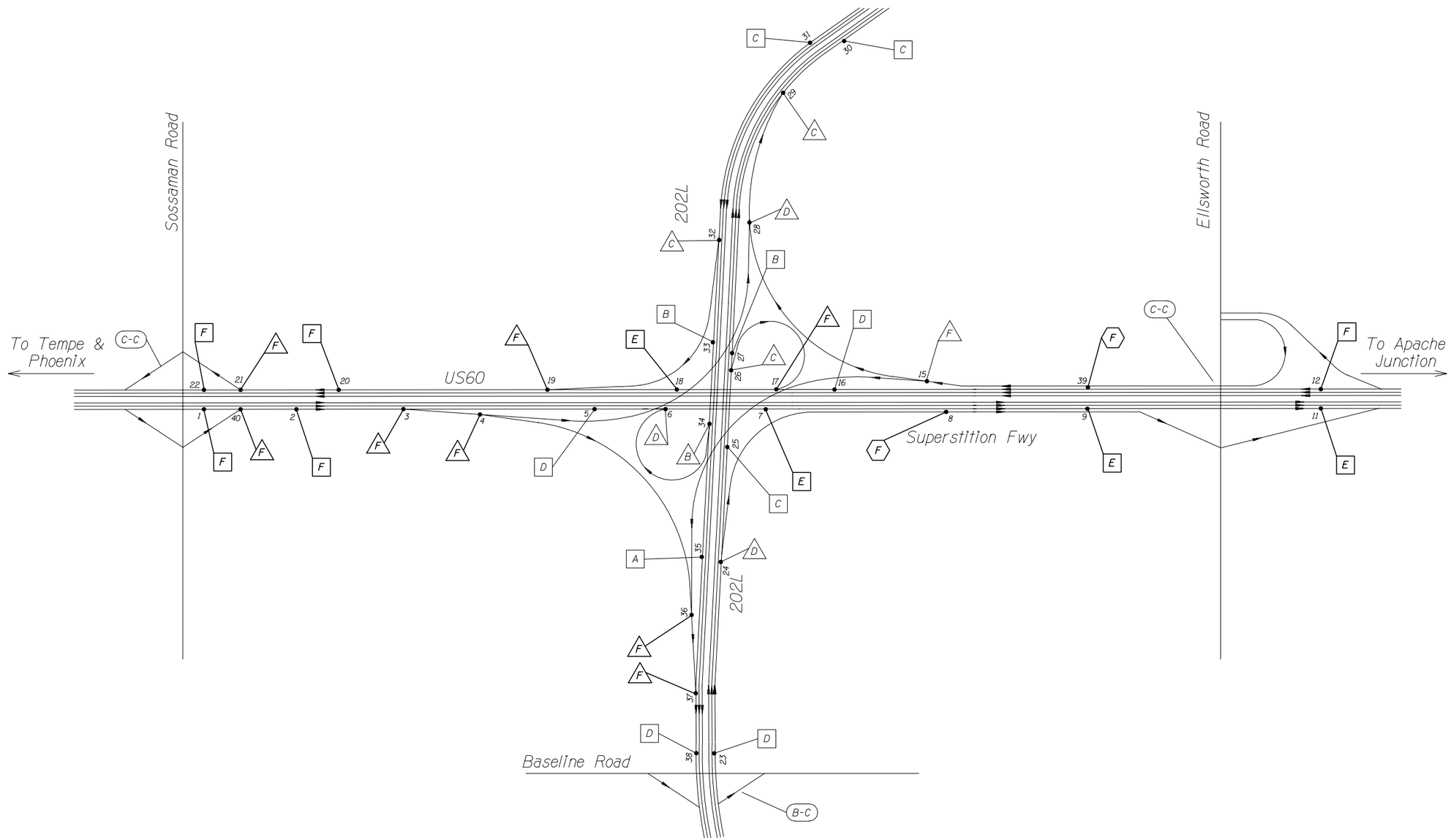
Figure 1-3



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LEGEND

- ☐ - Freeway Mainline Level Service (LOS)
- △ - Ramp Merge/Diverge LOS
- ⬭ - Weaving LOS
- ⬡ - Interchange LOS (AM-PM)

NOTES

- Each line depicts a single travel lane.
- Arrows indicate direction of traffic flow.
- Bold symbols represent unacceptable LOS.

2025 Projected Levels of Service, 1999 FEIS Concept

Figure 1-4

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00173/001/dgn/2Fig_1-4.dgn

- Provide necessary modifications to the US60 TIs at Sossaman Road and Ellsworth Road to accommodate the alternative designs.

- Evaluate the planned TI on 202L at Baseline Road to confirm the need for the TI based upon the most recent Design Year 2025 traffic volumes.

Through an initial screening of these alternatives, it was determined that the TI alternatives could impose additional impacts on the surrounding community that were not anticipated in the FEIS. Therefore, ADOT and FHWA determined the TI design concept studied in the FEIS (**ADOT 1999a)** must be updated to support the new design concepts, and that the environmental evaluation in the FEIS **(ADOT 1999a)** must be updated as well to address possible additional environmental impacts.

D. CONFORMANCE WITH REGULATIONS, LAND USE PLANS AND OTHER PLANS

This project is in conformance with the following regional and local planning efforts:

- The *Mesa Transportation Study* first identified the need for a Red Mountain transportation corridor **(City of Mesa 1982)**.

- The *Eastside Transportation Analysis* concluded that by the year 2015, without major changes in transportation and land use plans, the capacity of the major arterial street intersections would be exceeded and would operate with extreme congestion at LOS F **(ADOT 1984)**. Based on these conclusions, MAG and the City of Mesa adopted a six-lane freeway concept for the Red Mountain corridor (the 202L alignment north of US60) to achieve operating conditions of LOS C or better at street intersections.

- The *Mesa-Chandler-Gilbert North-South Corridor Study* concluded major arterial intersections were operating at LOS E and LOS F conditions during the peak-travel periods, and average daily traffic (ADT) volumes of 260,000 to 290,000 vehicles per day (vpd) could be expected on the arterial street network by 2015 **(City of Mesa 1987)**. The City of Mesa's 2015 arterial street network was projected to accommodate approximately 190,000 ADT, creating a capacity deficiency of 70,000 to 100,000 ADT. With the construction of the 202L, the study concluded the combined transportation network could handle approximately 360,000 ADT, thereby relieving the congested conditions forecasted for the East Valley.

- The *Mesa Freeway Corridors Study* documented the need for the 202L and the 202L/US60 TI to serve planned growth and development in the East Valley **(City of Mesa 1996; City of Mesa 1988)**.

- The 202L and 202L/US60 TI are integral elements of the MAG Regional Freeway System, which is an integral component of the NHS in the greater Phoenix metropolitan area, and are major land use and transportation components of the *Mesa General Plan* **(City of Mesa 1996)**.

- The need for the 202L, and the 202L/US60 TI, was confirmed with completion of the *Red Mountain Freeway, SR 87 to US60 Final Environmental Impact Statement/Section 4(f) Evaluation* **(ADOT 1999a)** and the *Santan Freeway, Price Freeway to Baseline Road Final Environmental Assessment* **(ADOT 1999b)**.

E. GENERAL PROJECT SCHEDULE

The current ADOT *Five-Year Highway Construction Program for Fiscal Years 2001-2005* includes the construction of the 202L/US60 TI. It is scheduled for construction completion in 2007. Current Regional Freeway System Life-Cycle Construction Program projects for the 202L near the 202L/US60 TI are shown in Table 1-1.

Table 1-1. Summary of Construction Program for the 202L

Project Description	Final Design	Construction
202L; US60 – Baseline Road	April 2002 – June 2003	Jan 2004 – Dec 2005
202L; Elliot Rd – Baseline Road	April 2002 – June 2003	Jan 2004 – Dec 2005
202L; University Drive-US60	Jan 2004 – March 2005	Oct 2005 – Sept 2007

F. ISSUES ELIMINATED FROM DETAILED STUDY (NEGATIVE DECLARATION)

The following resources are not found in the study area, and are not discussed further in this document.

- Prime or unique farmlands.

- Wetlands.

- Wild and scenic rivers.

- Sole-source aquifers.